

Work Order ID 73769-2

Thursday, September 15, 2011 8:55:42 AM



Page 1

Item ID: D6101-003

Accept



Setup Start



Revision ID:

Item Name: Saddle Billet, 7075

Stop



Start Date: 9/15/2011 Start Qty: 60.00

Required Date: 9/30/2011 Req'd Qty: 60.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan: W

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D6101

Rev B

100

0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 14899

a) Description: Aluminum billet

b) 7.875" x 6.250" x 2.00" thick

c) Tolerance on all dimensions are +0.030"/-0.000"

d) Grain direction along 7.875" length

e) Material: 7075-T7351 (QQ-A-250/12)

f) Material certification required

110

0.00



Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

0.00

Packaging

Ensure material certification is attached

11-09-15
60

Rec'd 9/27 (40)

Work Order ID 73769

Thursday, September 15, 2011 8:55:42 AM



Page 2

Item ID: D6101-003

Accept



Setup Start



Revision ID:

Stop



Item Name: Saddle Billet, 7075

Start Date: 9/15/2011 Start Qty: 60.00



Cust Item ID:

Required Date: 9/30/2011 Req'd Qty: 60.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

Ensure Material certification comply to Dwg D6101

ank 11/09/28

40

130



Packaging

Packaging

Identify as per dwg & Stock Location: *MAT44* 0.00

Memo

0.00

ank 11/09/28

40

140



QC

Quality Control

QC21- Final Inspection - Work Order Release 0.00

Memo

0.00

11/9/28

ME 11-09-28

Picklist Print

Thursday, September 15, 2011 8:55:40 AM

Work Order ID: 73769

Parent Item: D6101-003

Parent Item Name: Saddle Billet, 7075



Start Date: 9/15/2011

Required Date: 9/30/2011

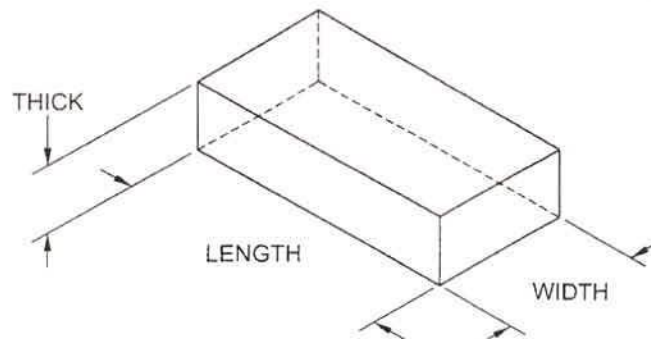
Start Qty: 60.00

Required Qty: 60.00

Comments: IPP A: 01.05.04 New Issue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-003P 7075-T7351 2X6.25X7.875		Purchased	No			110	Each	0.0000	 1	60		9/15/2011	(40)

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/19, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/WB

WLO 73769

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 2

No de Formulaire d'Emballage / Shipment No:994855

Expédié de / Ship From: A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Vendu à / Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Expédié à / Ship To: WILL CALL-MONTREAL 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Livré à / Deliver To: WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA	
Date d'expédition / Date Shipped 26-SEP-2011	F.O.B. ORIGIN	Modalités de transport / Freight Terms Prepaid		Transporteur / Carrier MANITOULIN		No du Bon de connaissance / BOL No 994855-2	

Détails d'expédition / Shipment Details	Destination finale / Final Destination Branch - MON
--	--

N° de commande / Order No	N° de ligne / Line No	N° d'article / Item No	Description				
1713957	2	752237.MO	2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) X 7.875 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12				
N° de bon de commande / Purchase Order No 14899	Nbre de pièces / Part Number YOUR ITEM NUMBER: D6101-003		<table border="1"> <tr> <th>Qté commandée / Ordered Qty</th> <th>Qté Facturée / Invoice Qty</th> </tr> <tr> <td>40.00 PCS</td> <td>40 PCS</td> </tr> </table>	Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty	40.00 PCS	40 PCS
Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty						
40.00 PCS	40 PCS						

Détails / Details							
N° de livraison / Delivery No :	Usine / Mill	No de coulée / Heat Number	Code méc / Mech Id	Pièces / PCS	Largeur (Pouce) / Width (IN)	Longueur (Pouce) / Length (IN)	Qté expédiée / Shipped Qty(LBS)
95589308		469765A2		10			101.61
95589308		469765A2		20			203.22
95589308		469765A2		10			101.61

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des États-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.
 These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.
 Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'

Date Printed: 26-SEP-2011 02:57:58 PM



Castle Metals®

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 2 of 2

<p>essais sont archivés pour fin de consultation. Toute requête concernant du matériel défectueux sera rejetée, moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.</p> <p>We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.</p> <p>Ce matériel a été reçu et inspecté par</p>		
Reviewed by Authorized Castle Metals Representative:	Date:	Name:

SHIP TO:
CASTLE METALS AEROSPACE
15 EXECUTIVE BLVD.
ORANGE, CT 06477

**KAISER
ALUMINUM**

Tren Wood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4161161

SOLD TO: CAS AERO% A M CASTLE METALS ATTN:BOB OHR % ACCTS PAYABLES 3400 NORTH WOLF RD FRANKLIN PARK, IL 60131		CUSTOMER PO NUMBER: 8352		WORK PACKAGE:		CUSTOMER PART NUMBER: 752237 AMC CA-15745		SHIP RUN/LOAD ID: 101527/11		GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1082355	LINE ITEM: 1	SHIP DATE: 29-APR-2009	ALLOY: 7075	CLAD: BARE	TEMPER: T 351	PRODUCT DESCRIPTION: Sawed Plate					
WEIGHT SHIPPED: 8598 LB	QUANTITY: 6 PCS EST.	B/L NUMBER: 2022480	GAUGE: 2.0000 IN	WIDTH: 48.500 IN		LENGTH: 144.500 IN					

Certified Specifications

AMS 4078/RevG
ASTM B 209/Rev07
BSS 7055/RevA
DPS 4.713/RevAH
GSS18100/RevG/Amd1

AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevE
MMS 159/RevN

AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 469765A2 Cast 222

Drop 37

Ingot 1

(ASTM E8/B567)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPa)	Yield KSI (MPa)	Elongation %
	T7351	LT / 2 (Min:Max)	73.4 : 73.5 (506 : 507)	11.5 : 81.8 424 : 426)	12.3 : 12.8

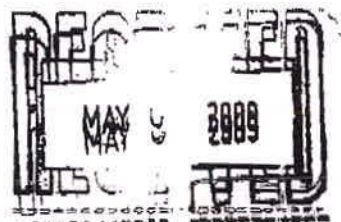
(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	40.2 Min	0.4 Max
(MS/M) :	23.3 Min	3.4 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.07	0.13	1.4	0.04	2.5	0.18	.8	0.02	0.01	0.01	TOT 0.04



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4161161

Lot: 469790A0 Cast 222 Drop 34 Ingot 2

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	74.9 : 75.1 (518 : 518)	63.6 : 64.1 (439 : 442)	12.1 : 12.2

(ASTM E1004)
(EN 2004-1)
Conductivity %IACS : 41.1 Min 41.2 Max
(MS/M) : 23.8 Min 23.9 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.10	0.22	1.6	0.03	2.5	0.19	5.7	0.04	0.01	0.02	TOT 0.05

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

7075-T7351 plate 3.001-3.500" thick, if ultrasonically inspected, meets requirements of CMMPQ25 per SDR CMMPQ25-Kaiser-T-1. 7075-T7351 plate 3.501-5.000" thick, if ultrasonically inspected, meets requirements of CMMPQ25 per SDR CMMPQ25-Kaiser-T-2.

Metal represented by this test report was immersion ultrasonically tested from one side and meets the Class A and Class B requirements of all specifications referenced on this test report.



CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SUPPLIED UNDER THIS ORDER WAS MELTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER DFARS 225.872-1(b), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF DFARS 225.225 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. OR ENTIRE ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. (50-9001:2000 CERTIFIED).

BILL POYNOR, LABORATORIES SUPERVISOR

Bill Poy